Easter Island *Ahu* Archaeology Twenty-Five Years after the Norwegian Expedition

A REVIEW OF THE AHU A KIVI-VAI TEKA COMPLEX

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The A Kivi-Vai Teka Complex and Its Relationship to Easter Island Architectural Prehistory. William Mulloy and Gonzalo Figueroa G-H. APAS 8. Honolulu: Social Science Research Institute, University of Hawaii at Manoa, 1978. (Distributed by The University Press of Hawaii.) 141 pp. text, 12 plates, 47 figures, 16 tables (210 pp. total). $6.00 (paper).

THIS MONOGRAPH describes the 1961 excavation and restoration of an Easter Island architectural complex that consists of two related *ahu* platforms and their associated statues. A Kivi was the first *ahu* restored by Mulloy and Figueroa during their twenty-odd years of archaeological research on Easter Island; with its seven statues, A Kivi is also the largest *ahu* they reconstructed. Because this was Mulloy's last major publication before his death in 1978, the archaeological synthesis is all the more significant. The conclusions present the culmination of the authors' thinking about how *ahu* architectural developments reflect a stylistic continuity derived from early Polynesian settlement.

The volume contains a short statement of the research problem, a 67-page description of the archaeological work undertaken at Ahu A Kivi, seven pages on the excavations and restoration of Ahu Vai Teka, and a brief description of excavations in a burial cave. Forty-five pages are devoted to artifact analysis and three pages to reviewing the radiocarbon dating and calendrical corrections. The concluding pages place the architectural developments within a proposed islandwide sequence of statue and *ahu* architectural change.

Selection of the A Kivi site was based primarily on the need to locate a structure with multiple building stages that might be compared to Early, Middle, and Late *ahu* stages—

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reflecting changes in stone carving and statuary—as recorded in 1955–1956 by Mulloy at Vinapu and by Smith (1961) in several other *ahu.* This research requirement and the A Kivi excavation plan reflect the writers' aim to establish an islandwide sequence of *ahu* architecture to test hypotheses about broader cultural change resulting from possible migrations to the island.

Several research problems pertinent to a discussion of the A Kivi-Vai Teka complex remained after the publication of the Norwegian Archaeological Expedition's research in the 1960s; these include: (a) clarification of whether the vertical slab or the horizontal carved block masonry in the *ahu* rear walls or façades (often called "seawalls" because they are normally on the sea side) represent distinct building phases or periods, (b) verification of the temporal span of solar-oriented architecture, and (c) documentation of a local transition of statuary from more naturalistic forms to the highly stylized Rano Raraku images.

Mulloy tended to be cautious about relating his Vinapu sequence to architectural chronology for the entire island, and he maintained that it should not be considered representative of the island without further testing. The A Kivi-Vai Teka work was his next step toward establishing an architectural change sequence. Since the 1960 work at Ahu A Kivi, Mulloy and Figueroa have contributed additional archaeological evidence from other *ahu* to test the original proposition. Ahu A Kivi provides important information on architectural development, but it dates to a later period than originally expected.

Ahu A Kivi is unusual because of its inland location and because its statues face west, toward the sea—the images view the plaza or court, as in other *ahu.* Situated inland and away from historic population centers, A Kivi was exposed to considerably less disturbance than other *ahu.* Its topographic setting in the local terrain accounts for a substantial deposit of soil overburden after the structure was abandoned.

The A Kivi site is stratigraphically complex, particularly because earlier deposits were altered in later rebuilding. Construction occurred in two major stages. The *ahu*'s first stage established the basic layout and delineated the full dimensions of the platform (about 35 m long) and the lateral wings extending 20 m from either end. The central platform was conjecturally reconstructed by the excavators as a very long, narrow platform with a carved and fitted stone rear wall and surface not unlike the well-known Vinapu Ahu no. 1, first stage, which was built perhaps 200 years earlier. A plaza of approximately 25 by 90 m was attached. A Kivi was oriented to the rising sun at the equinox. No evidence of statues on the platform was recognized; the authors, however, do suggest (p. 27) that a large polygonal slab found in the central platform fill might have been positioned as an upright, similar to those used on *marae* in central Polynesia. A small, classic image made of Rano Raraku tuff (about 1 m high) was also found in the central platform fill, but it could not be determined for certain whether this image was from the first or second stage construction.

The second major construction stage is described as a rebuilding of the earlier platform to support seven large statues on pedestals; this remodeling also resulted in a substantial elevation of the *ahu* wings and the ramp and a shift to the more popular, later pavement pattern of beach stone rows. The platform top and much of the rear wall lost their finely carved and fitted stone in the remodeled form, which was conceived of and built as a highly symmetrical unit, representing an "architectural pattern climax" (p. 125).

The final major activity was the purposeful destruction of the site. All seven statues were toppled forward by undermining the platform pedestals they stood on. There was

much less "Later Period" activity here than at many other *ahu* and the statues were not buried beneath loose rock.

Ahu Vai Teka is a small, single-statue shrine 0.7 km west of A Kivi and possibly tied to the larger *ahu* by shared solar orientation. This was established by projecting the equinox line (rising sun) from the center of the A Kivi rear wall to the center of the Vai Teka rear wall with only a 2° 52′ discrepancy. Vai Teka was perhaps built at the same time as A Kivi, first stage (p. 130), but the radiocarbon dates (A.D. 1480, most specifically) and the single statue suggest that it was possibly contemporaneous with the later image remodeling stage of A Kivi.

Excavations produced a wide range of artifacts. The cremation pits, in the classic position behind the right rear corner of the central platform, yield the earliest known stone fishhooks (A.D. 1400–1500). The authors, however, provide conflicting references to the proveniences of the two stone fishhook fragments; the initial reference (p. 54) is to Crematorium 1 at Ahu A Kivi; later (p. 115) they are associated with Crematorium 2, and finally (p. 139) they are placed only within post-occupation deposits at the site. The excavations also produced a large number of small stone human images (8 to 15 cm high)—several in association with the crematoria. Other artifacts found at the site, numerous *mataa* spearpoints, stone adzes, obsidian eye inlays for carved wooden statues, stone "bowling" game disks, obsidian drills, scrapers, spokeshaves, and files have been reported previously from *ahu* and other sites.

An important aspect of the stone adze classification study is the distinction between woodworking and stoneworking tools, but the criteria for this distinction are not clearly specified. Shaping or finishing by grinding for woodworking adzes seems to be the basic criterion, but adzes that are unground, even those lacking grinding of the edge and bevel, certainly could have been used for shaping either wood or stone. On the other hand, a ground bit would clearly permit smoother finishes in wood, and the use of a carefully ground bit on wood would result in fewer nicks and other damage than in work on stone. Because building stone was almost always finished by pecking and sometimes by grinding, the rougher cut made by an adze with an unground edge would be sufficient. Adzes identified as stoneworking tools (flaked only, thus some may be unfinished) do seem to show a steeper bit angle (see especially Fig. 31, nos. 3, 5; Fig. 32, nos. 2, 3). Width/thickness indices for both kinds are similar—woodworking adzes (57.9) average somewhat higher than stoneworking ones (50.1)—but the woodworking adzes have much narrower bits. Bit angle and bit width were likely major determinants of adze use; these must be correlated with edge-wear examination and experimentation in future studies to differentiate adze use reliably. The authors do mention their experimental study of obsidian chisel edges. A small percentage (27%) of flaked, unground adzes reportedly shows edge damage or abrasion from use on stone.

In discussing the stone statues (p. 133), one reference made to the age of quarrying activities at Rano Raraku may be somewhat misleading. Sample K-507 (A.D. 1476 ± 100) collected by Skjølsvold is described as being from "above the bottom of the quarry spoil deposit." In fact, Skjølsvold (1961:343, fig. 90) places this sample only 35 to 50 cm deep in the top of the quarry refuse (in black soil with stone picks and much stone debris in his "South exploring Trench"); beneath this layer another one of sandy soil, clay, stone debris, and stone picks provides an admittedly problematic radiocarbon reading of 750 ± 250 B.P. (K-521, corrected to A.D. 1215) at 3 m depth. The lower, 13th-century estimate is a reasonable age, despite the poor quality of the actual reading; it is associated with quarry

debris located over 2.5 m below the dated K-507. Although Skjølsvold states that very few picks for carving the stone images were found below the 3 m depth (1961:343)—i.e., before the 13th-century level—it should be noted that a major stratigraphic layer of black soil, clay, stone debris, and stone picks (Fig. 90, profile B–C) extends beneath and thus predates the layer containing sample K-521. The earlier stratigraphic layer ranges from only 1 to over 2.5 m beneath the surface of the older, north end of the mound, but it is upslope and partially covered by the dated layer. All this suggests that considerable quarrying took place at this Rano Raraku location before the 13th century; this fits well with the dated developmental sequence ranging from early Ahu Tahai (c. A.D. 700, my stage I; no stylized image), to Ahu Ko te Riku (c. A.D. 1100–1200; large stylized statue), and, finally, to Ahu no. 1 at Hanga Kio'e on the west coast, which had one statue (dated by Mulloy in 1972 to the surprisingly late time of A.D. 1770 ± 55—corrected to A.D. 1650—not long before Captain Cook's arrival at the island.

The authors' Table XVI, showing architectural traits of eleven dated *ahu,* has some confusing designations: one of these is "Crude Slab and Header Masonry" that is said to be present at Ahu Tahai, Ko te Riku, Huri a Urenga, Vai Teka, Vinapu 1, second stage, and A Kivi, second stage. The significance of this category is somewhat unclear because no reference is made to the structural part containing this kind of stonework. The platform rear walls of Ahu Tahai and Ko te Riku are dramatically different, with the former having large, shaped slabs set vertically and the latter having small blocks fitted together with at most minimal shaping. Vertical slab and header rear wall masonry—the earliest known style (Smith 1961, Ayres 1971)—should have been distinguished in their table. This style appears early in Ahu Tahai and Vinapu 2 and it continues in a somewhat shorter, modified form at Huri a Urenga and in some very late forms, Ahu nos. 1 and 2 at Hanga Kio'e. Sinoto (1970:fig. 15) illustrates a Marquesan shrine with a small image that is reminiscent of the modified Easter Island style. Finely carved and fitted block masonry, such as the Vinapu 1 rear wall, first stage, appears late in the sequence, after A.D. 1200.

The question of the temporal span of solar-oriented structures raised in the early research is more fully answerable as a result of the studies by Mulloy and Figueroa. They maintain (p. 128) that equinox orientation is first evident at Vinapu 2, first stage. Because Ahu Tahai stage I is very similar architecturally to Vinapu 2, it seems likely that Tahai I should be considered the earliest known solar-oriented structure. The authors cautiously question such orientation for Tahai I, but bearings taken at right angles to the rear wall line were within 3° to 4° of the setting sun at winter solstice, and, given the irregularities of the façade, this seems reasonably close. Interestingly, I found that nearby Ahu Mahanua, which has similar slab masonry, has an almost identical orientation. These measurements and architectural parallels support solar orientation as a characteristic of the earliest known *ahu.* Although such orientation continues to be important in later ("Middle Period") structures such as Ahu A Kivi-Vai Teka, it is no longer always present, e.g., Ahu Ko te Riku.

The proposed transition from an early naturalistic statue form to the stylized Rano Raraku style busts is still problematic; although the available data strongly suggest such a trend—and I could illustrate this with statues arranged in a hypothetical sequence—it appears that naturalistic forms cannot be dated unquestionably earlier than the first appearance of the stylized forms (c. A.D. 1100). Thus, the probability of contemporaneous variation in style and function persists. That functional differences existed is suggested by the use of house entry-post images and the presence of small stone images—perhaps introduced as offerings—in cremation pits.

Although Mulloy and Figueroa make a strong case for *ahu* stylistic continuity throughout the known sequence, some questions remain as to the possible distinctive features of structures built before A.D. 1000–1100. The following traits are definitely present early: (a) platform rear walls of large vertical upright slabs, (b) carved stone masonry, and (c) solar orientation. Other features have not been confirmed in the two excavated and dated early *ahu* examples: (a) stone statues on the central platform and (b) crematoria associated with the *ahu.* As noted earlier, the first three features, along with a number of other early traits, do continue in later *ahu;* the last two, with rare exceptions, have been shown to characterize *ahu* after A.D. 1100 or so. That stone images were used on *ahu* during the early stages is likely but not yet firmly demonstrated. Crematoria may very well have been a later addition.

The summary discussion of eleven dated *ahu* clearly shows two later temporal clusters: one around A.D. 1100–1200 (Ahu Ko te Riku, Tahai II, Ahu Huri a Urenga, and Vinapu 1, first stage) and another around A.D. 1400–1500 (Ahu A Kivi, Ahu Vai Teka, Ahu Vinapu 1, second stage, and probably, Ahu A Kivi, second stage). Two structures, Ahu Tahai I and Ahu 1 at Hanga Kio'e, lie at either extreme of known *ahu* construction. Whether there was a hiatus in image *ahu* building and modification during the 14th century or whether the gap reflects sampling error remains to be determined. It should be noted that, because of logistical problems in fieldwork, virtually all the dated *ahu* are in the island's west side, the area traditionally controlled by the Ko Tu'u confederacy of kin groups *(mata).*

Two major changes seem to characterize the later *ahu* group (see Mulloy and Figueroa, p. 132): (a) absence of platform front (inland) walls made of carved and fitted rectangular, chamfered slabs placed horizontally (on edge), and (b) a decrease in plaza barrier surrounds (seen especially at Vinapu 2, first stage) and complete plaza retaining walls (seen at the early Ahu Huri a Urenga). I would argue that these changes resulted from the increasing importance of statues and a relative decrease in the prominence of the plaza; these in turn reflect interkin group competition in increasing *ahu* and image size and, conceivably, a decline in the importance of religious leaders as opposed to chiefs.

The authors point out that the present Easter Island sequence is based almost entirely on *ahu* architectural stratigraphy and dating and that their conclusions apply specifically to *ahu* development and not to the entire Easter Island culture. Despite the problems of establishing secure artifact context with *ahu* building phases, continuity of many basic tool forms has also been established (see McCoy 1976 for a discussion of the later prehistoric sequence). This and the central importance of the ritual centers—shown in their size and obvious high energy input, with or without statues—suggest to me that widespread rapid changes in architecture might very well reflect dramatic changes in the total population and culture; that such breaks are not evident points to the persistence of the basic early Polynesian culture.

Given present evidence for architectural and artifactual continuity, arguments for later prehistoric (c. A.D. 1500) Polynesian migrations to the island surmised from oral traditions (e.g., Barthel 1978) lack credibility. I have argued elsewhere (1979) that language and artifacts, such as fishhooks, also counter traditional or genealogical evidence of a late Polynesian migration to the island.

The synthesis presented by Mulloy and Figueroa modifies the original hypothesis about three distinct building periods, for example, as described for Vinapu (Mulloy 1961) or Ahu Te Peu (Smith 1961); the architectural changes, although evident in many individual structures, cannot be seen as islandwide, contemporaneous shifts—as Mulloy

(1961:160) originally cautioned. The work at Ahu A Kivi demonstrates well that *ahu* platform remodeling to support large statues took place at varying times between A.D. 1000 and 1700 and not just at the end of Smith's chronological "Early Period" (A.D. 1100). Both Vinapu 1 and Ahu A Kivi show relatively late, large-scale modifications associated with statuary requirements.

The question of multiple migrations to Easter Island—which Heyerdahl (e.g., 1968) and Ferdon (1961), more cautiously, proposed partly on the basis of distinct *ahu* periods—cannot be finally resolved with present data, but this migration hypothesis is clearly less acceptable after 25 years of subsurface archaeology than when originally formulated.

Mulloy and Figueroa conclude (p. 122) that the early Ahu Tahai architectural style is a local one which developed from an earlier form inspired by extra-island *marae* prototypes. In addition to refining the local Easter Island sequence, then, documenting early stone masonry of comparable antiquity in *marae*-type structures elsewhere in East Polynesia remains a significant problem.

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